Claims

1. A system for providing data communication between connected modules, wherein said modules are adapted to

5   transmit to and receive from one another a data package comprising in a layered structure a physical layer comprising a first and a second segment for encapsulating other layers in said data package, a data link layer comprising a data link layer control section for carrying

10   data link layer control data and a data section for carrying data for said other layers, and a transport layer defining a message in said data section, which message is configured according to a transport layer protocol and comprises a payload and a first header field

15   for format of said payload, a second header field for start of said payload in said message, a third header field for length of said message, a fourth header field for version of said transport layer protocol, and a fifth header field for message group identity establishing

20   receiving resource format of said payload.

2. A system according to claim 1, wherein said modules comprise a mobile communication device such as a cell, mobile or satellite telephone, a personal digital

25   assistant, or a peripheral thereto.

3. A system according to any of claims 1 or 2, wherein said modules comprise one or more objects communicating said message with one another, and a data link layer

30   generator and physical layer generator adapted to encapsulate said message according to a data link layer protocol and to a physical layer protocol, respectively.

4. A system according to any of claims 1 to 3, wherein said transport layer further comprises a sixth header field for a message identity for uniquely identifying said payload.

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5. A system according to any of claims 1 to 4, wherein said transport layer comprises a seventh header field for a connection number for identifying a communicating object in said module.

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6. A system according to any of claims 1 to 5, wherein said transport layer comprises an eight header field for a transaction identity for sequencing said message relative to other messages.

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7. A system according to any of claims 1 to 6, wherein said data link control data comprises a checksum field following said message.

20   8. A system according to any of claims 1 to 7, wherein said first segment of said physical layer comprises a media field for defining media, across which the data package is transferred.

25   9. A system according to any of claims 1 to 8, wherein said first segment further comprises a synchronization field for synchronizing the receiving module with the transmitting module.

30   10. A system according to any of claims 1 to 9, wherein said second segment of the physical layer comprises an index byte for providing the receiving module with

information regarding segmentation or partitioning of data contained in a message.

11. A system according to any of claims 1 to 10, wherein said second segment further comprises a sequence and acknowledge field for providing a receiving module with information whether said data package is an acknowledgement message or an ordinary message.

12. A system according to any of claims 1 to 10, wherein said second segment further comprises a sequence and an acknowledge field is adapted to inform whether an error was identified in the received data package, when said data package is an acknowledgement message.

13. A system according to any of claims 11 or 12, wherein said sequence and acknowledgement field is further adapted to inform a receiving module that a sequence number in said receiving module should be reset.

14. A system according to any of claims 11 to 13, wherein said sequence and acknowledgement field is adapted to recognise acknowledgement messages and detect missing data packages.

15. A system according to any of claims 1 to 14, wherein said second segment further comprises a fill field for ensuring that all data packages sent over said port connector contain an even amount of bytes.

16. A system according to any of claims 1 to 15, wherein said second segment further comprises a parity field for

storing parity calculated on the basis of the data
package excluding the parity field.

17. A system according to any of claims 1 to 16, wherein
said transport layer comprises a ninth header field for a
future extension comprising information required by a
future transport layer protocol.

18. A data package for communicating between modules,
wherein said data package comprising in a layered
structure physical layer data comprising a first and a
second segment for encapsulating other layers in said
data package, a data link layer comprising a data link
layer control section for carrying data link layer
control data and a data section for carrying data for
said other layers, and a transport layer defining a
message in said data section, which message is configured
according to a transport layer protocol and comprises a
payload and a first header field for format of said
payload, a second header field for start of said payload
in said message, a third header field for length of said
message, a fourth header field for version of said
transport layer protocol, and a fifth header field for
message group identity establishing receiving resource
format of said payload.

19. A data package according to claim 18, said transport
layer further comprises a sixth header field for a
message identity for uniquely identifying said payload.

20. A data package according to claims 18 or 19, wherein
said transport layer comprises a seventh header field for

a connection number for identifying a communicating object in said module.

21. A data package according to claims 18 to 20, wherein said transport layer comprises an eight header field for a transaction identity for sequencing said message relative to other messages.

22. A data package according to claims 18 to 21, wherein said transport layer comprises a ninth header field for a future extension comprising information required by a future transport layer protocol.

23. A receiver unit adapted to receive a data package according to any of claims 18 to 22.

24. A transmitter unit adapted to transmit a data package according to any of claims 18 to 22.

26. A method for establishing data communication between modules, wherein said modules each communicate a data package comprising in a layered structure a physical layer comprising a first and a second segment for encapsulating other layers in said data package and a data link layer comprising a data link layer control section for carrying data link layer control data and a data section for carrying data for said other layers, and wherein said method comprising: providing in said data package in a transport layer a message in said data section, which message is configured according to a transport layer protocol and comprises a payload and a first header field for format of said payload, a second header field for start of said payload in said message, a

third header field for length of said message, a fourth
header field for version of said transport layer
protocol, and a fifth header field for message group
identity establishing receiving resource format of said
5   payload.

27. A computer program comprising code adapted to perform
the following steps when said program is run in a data
processor adapted to establish data communication between
10   modules, wherein said plurality of modules each
communicate a data package comprising in a layered
structure having a physical layer comprising a first and
a second segment for encapsulating other layers in said
data package and a data link layer comprising a data link
15   layer control section for carrying data link layer
control data and a data section for carrying data for
said other layers, and wherein said program providing in
a transport layer a message in said data section, which
message is configured according to a transport layer
20   protocol and comprises a payload and a first header field
for format of said payload, a second header field for
start of said payload in said message, a third header
field for length of said message, a fourth header field
for version of said transport layer protocol, and a fifth
25   header field for message group identity establishing
receiving resource format of said payload.